



# TEAC

## SERVICE MANUAL

# PD-H503

3CD Player



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### NOTES

- PC boards shown are viewed from parts side.
- The parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- ⚠ Parts marked with this sign are safety critical components. They must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.
- Parts of [ ] mark can be used only with the version designated.  
[US]:U.S.A. [C]:CANADA [E]:EUROPE [UK]:U.K.

# 1 SPECIFICATIONS

## Laser System

3-beam laser

## Digital Filter

8-times oversampling

## Frequency response

20Hz ~ 20kHz (playback:  $\pm 0.5$ dB)

## Signal to noise ratio

95dB (IHF-A)

## Dynamic range

More than 70dB

## Total Harmonic Distortion

0.02% (1kHz)

## Channel Separation

85 dB (1 kHz)

## Sampling frequency

44.1kHz

## Error correction

CIRC

## Power supply

120 V AC, 60Hz (U.S.A./Canada Model)

230 V AC, 50Hz (Europe/U.K. Model)

## Power consumption

12 W

## Dimensions (W x H x D)

285 x 131 x 327 mm (11-1/4" x 5-3/16" x 12-7/8")

## Weight (Net)

4.55 kg

## Standard Accessories

Audio signal connection cord x 1

Remote control cord x 1

- Design and specifications are subject to change without notice.

## SAFETY INFORMATION

This product has been designed and manufactured according to FDA regulations "title 21, CFR, chapter 1, subchapter J, based on the Radiation Control for Health and Safety Act of 1968", and is classified as a class 1 laser product. There is no hazardous invisible laser radiation during operation because invisible laser radiation emitted inside of this product is completely confined in the protective housings. The label required in this regulation is shown ①.

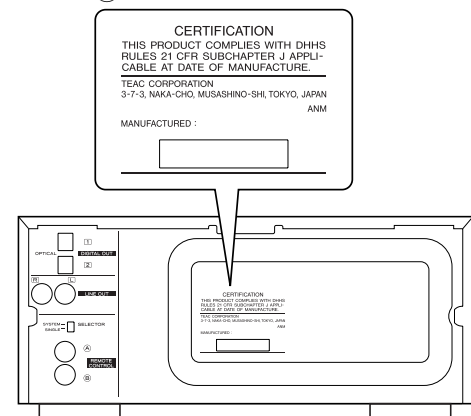
### ● CAUTION

USE OF CONTROLS OR ADJUSTMENT OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

### Optical pickup:

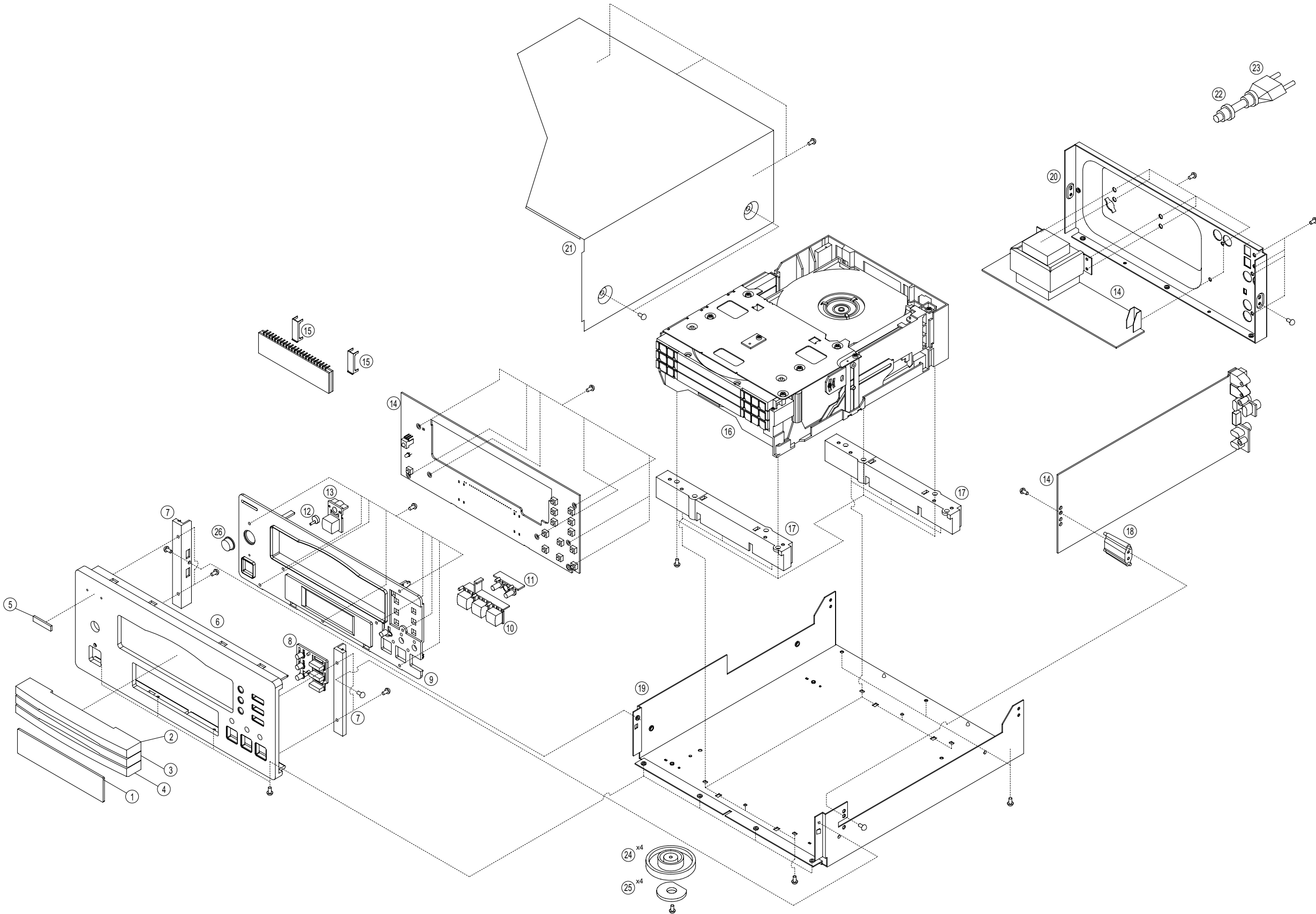
TYPE : SFP101NXR  
 MANUFACTURER : Sanyo Electric Co., Ltd.  
 LASER OUTPUT : Continuous Wave max. 0.5mW  
 WAVE LENGTH : 765-815nm

### ① For U.S.A.



2 EXPLODED VIEWS AND PARTS LIST

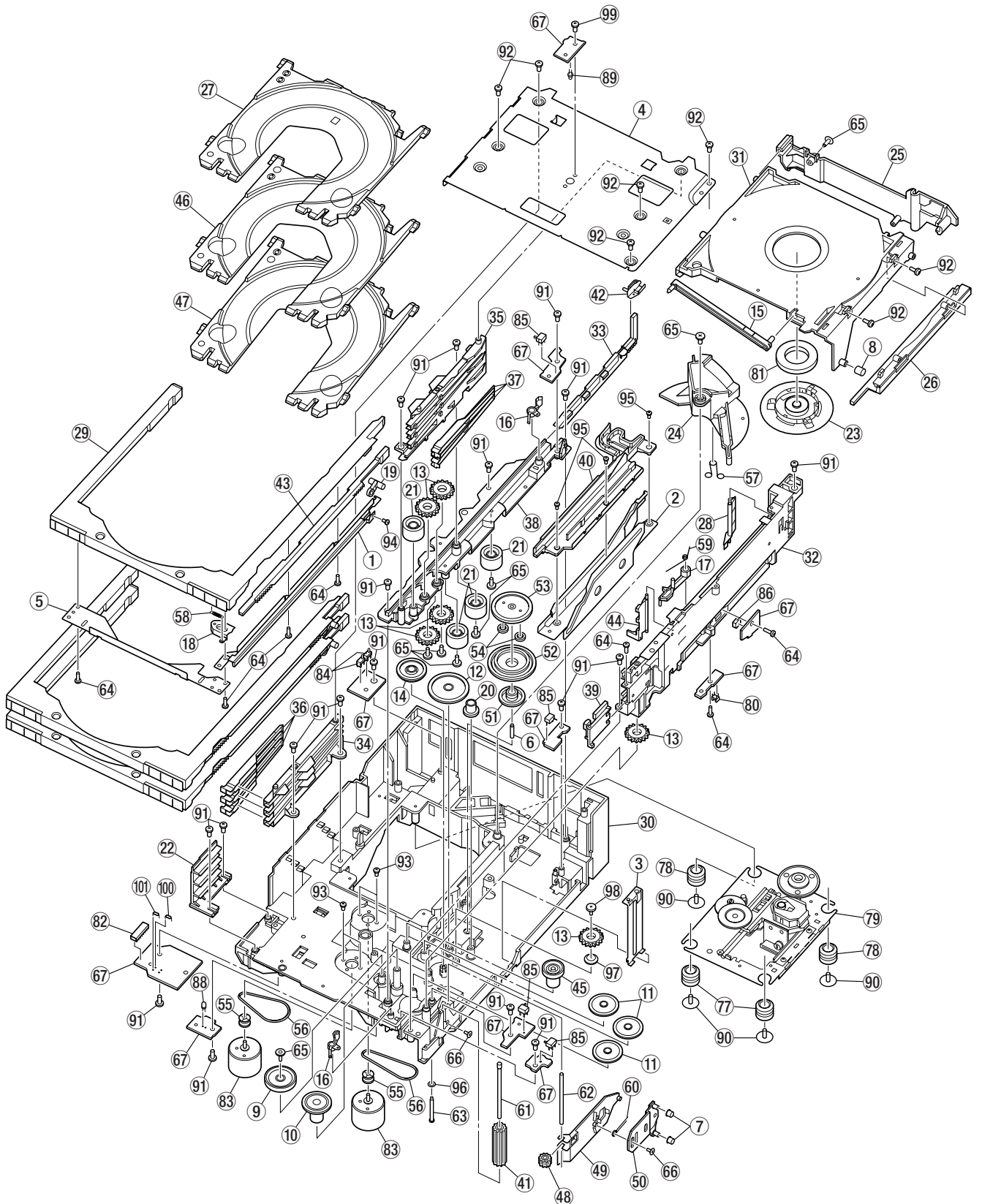
EXPLODED VIEW-1



## EXPLODED VIEW-1

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1- 1	9A06240500	WINDOW	KGU1A154Y
1- 2	9A08866700	ORNAMENT, DOOR (1)	KGR1A199M9ZK79
1- 3	9A08866200	ORNAMENT, DOOR (2)	KGR1A199M9YK79
1- 4	9A08866800	ORNAMENT, DOOR (3)	KGR1A200M9ZK79
1- 5	9A06677900	BADGE	KGB1A047
1- 6	9A09428000	PANEL, AL	KKM1A117ZC11
1- 7	9A06677600	SIDE BAR	KKM1A062C11
1- 8	9A09426200	KNOB, OPEN	KBT1A788WK64
1- 9	9A09427900	PANEL, SUB	KGW1A326ZK64
1-10	9A06316000	KNOB, TACT	KBT1A386WK64
1-11	9A06239700	KNOB, TACT	KBT1A410C13
1-12	9A07301300	INDICATOR, POWER	KGL2A120
1-13	9A07301200	KNOB, POWER	KBT2A387ZK64
1-14	9A09426300	MAIN PCB ASSY [US, C]	KOP11487C
	9A09426310	MAIN PCB ASSY [E, UK]	KOP11487B
1-15	9A07290000	BRACKET, FLT	KMD1A374
1-16	9A09426400	3 CD MECHANISM, MGC-F3400	BJDMGCF3400
1-17	9A09426600	SUPPORT, MECHA	KMH1A145
1-18	9A05989700	SUPPORT, PCB	KHE1A021
1-19	9A09426700	CHASSIS, BOTTOM	KUA1A208
1-20	9A09426500	PANEL, REAR	KKF2A142TK59
1-21	9A06881800	CABINET, TOP	KKC3B082S21
1-22	△ 9A01376900	BUSHING, AC CORD	KHR129
1-23	△ 9A08043100	POWER CORD [US, C]	BJA523FBY
	△ 9A08152100	POWER CORD [E]	BJA2B043Z
	△ 9A09267600	POWER CORD [UK]	BJA2E045Z
1-24	9A06315500	FOOT	KKL1A047ZK63
1-25	9A06229300	CUSHION, FOOT	KHG1A039Z
1-26	9A08792000	WINDOW, SENSOR	KGU1A245A10
F301	△ 9A06545400	FUSE [US, C]	KBA2C0630TLU
F301	△ 9A06868100	FUSE [E, UK]	KBA2C0315TLE

## EXPLODED VIEW-2



## EXPLODED VIEW-2 (MGC-F3400)

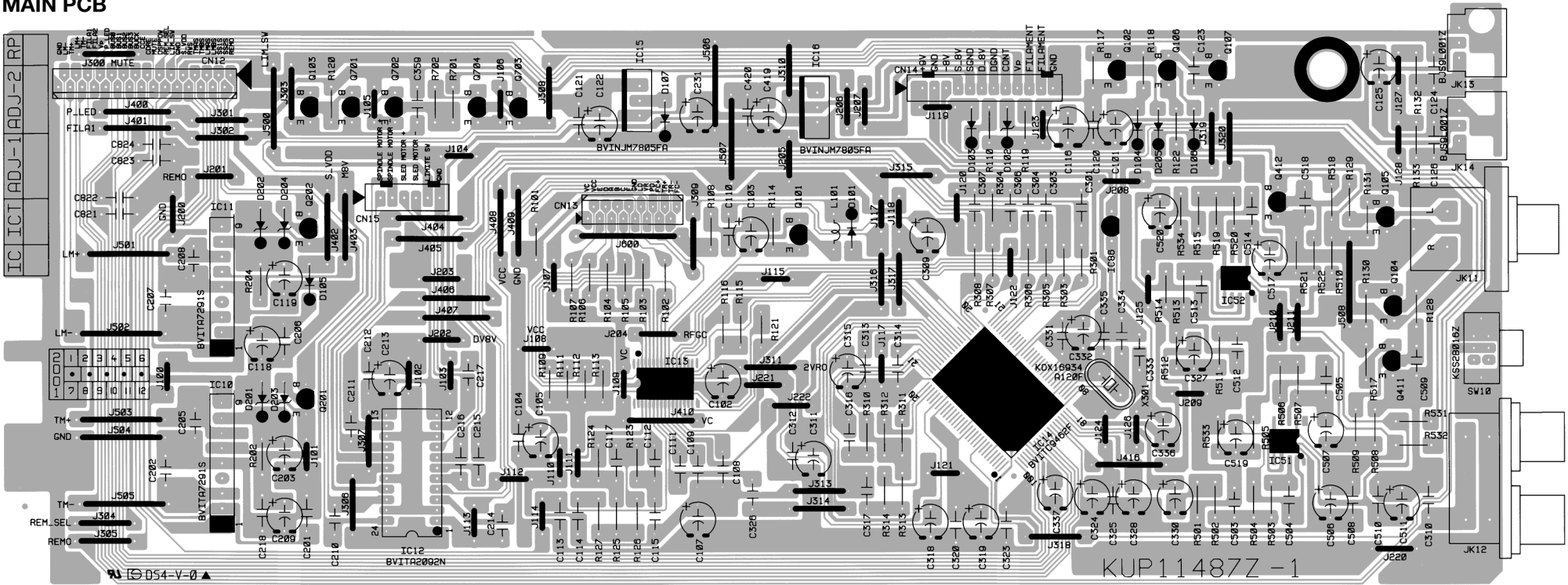
REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
2- 1	9A09436000	REINFORCING HARDWARE (S-A)	F3B 1007
2- 2	9A09436100	SLIDER (LIFT)	F3C 1003
2- 3	9A09436200	REINFORCING HARDWARE (R)	F3D 1004
2- 4	9A09436300	REINFORCING HARDWARE (TOP)	F3B 1005
2- 5	9A09436400	REINFORCING HARDWARE (F)	F3C 1006
2- 6	9A09436500	SHAFT (GEAR-C)	F3D 2001
2- 7	9A09436600	SHAFT (HOLDER GEAR)	F3D 2002
2- 8	9A09436700	SHAFT (HOLDER TRAY)	F3D 2003
2- 9	9A09436800	PULLEY	F3D 3001
2- 10	9A09436900	GEAR (TRAY MOTOR-A)	F3D 3002
2- 11	9A09437000	GEAR (TRAY MOTOR-B)	F3D 3003
2- 12	9A09437100	GEAR (TRAY MOTOR-C)	F3D 3004
2- 13	9A09437200	GEAR (TRAY-A)	F3D 3005
2- 14	9A09437300	GEAR (LIFT MOTOR-A)	F3D 3006
2- 15	9A09437400	ARM (JOINT)	F3D 3008
2- 16	9A09437500	ARM (LOAD SW)	F3D 3009
2- 17	9A09437600	LACK (GEAR)	F3D 3010
2- 18	9A09437700	ARM (TRAY-SUB)	F3D 3011
2- 19	9A09437800	ARM (TRAY-LOCK)	F3D 3012
2- 20	9A09437900	GEAR (LIFT-IDLER)	F3D 3013
2- 21	9A09438000	GEAR (IDLER)	F3D 3014
2- 22	9A09438100	GUIDE (TRAY OUTER-L)	F3C 3015
2- 23	9A09438200	CLAMPER	F3C 3016
2- 24	9A09438300	CAM (LIFT)	F3C 3017
2- 25	9A09438400	HOLDER (LIFT)	F3C 3018
2- 26	9A09438500	HOLDER (TRAY-R)	F3C 3020
2- 27	9A09438600	TRAY (SUB)	F3B 3021
2- 28	9A09438700	ARM (SWITCH CLOSE)	F3C 3022
2- 29	9A09438800	TRAY (MAIN)	F3A 3023
2- 30	9A09438900	CHASSIS (MAIN)	F3A 3024
2- 31	9A09439000	HOLDER (TRAY TOP)	F3B 3025
2- 32	9A09439100	GUIDE (TRAY OUTER)	F3A 3026
2- 33	9A09439200	SLIDER (TRAY-B)	F3C 3027
2- 34	9A09439300	GUIDE (TRAY-L)	F3B 3028
2- 35	9A09439400	GUIDE (TRAY-R)	F3B 3029
2- 36	9A09439500	ARM (TRAY CATCH-L)	F3C 3030
2- 37	9A09439600	ARM (TRAY CATCH-R)	F3C 3031
2- 38	9A09439700	CHASSIS (GUIDE)	F3B 3032
2- 39	9A09439800	GUIDE (TRAY MID)	F3C 3033
2- 40	9A09439900	GUIDE (CAM)	F3B 3034
2- 41	9A09440000	GEAR (TRAY-IDLER)	F3D 3035
2- 42	9A09440100	SLIDER (TRAY-A)	F3C 3037
2- 43	9A09440200	SLIDER (TRAY LOCK)	F3C 3039
2- 44	9A09440300	ARM (SWITCH OPEN)	F3C 3040
2- 45	9A09440400	PULLEY (B)	F3D 3042
2- 46	9A09440500	TRAY (SUB-2)	F3D 3043
2- 47	9A09440600	TRAY (SUB-3)	F3D 3044
2- 48	9A09440700	GEAR (TRAY-FINAL)	F3D 3045
2- 49	9A09440800	HOLDER (GEAR-B)	F3C 3048
2- 50	9A09440900	HOLDER (GEAR-C)	F3C 3049
2- 51	9A09441000	GEAR (SUN)	E1D 3021
2- 52	9A09441100	GEAR (INTERNAL)	E1D 3022
2- 53	9A09441200	GEAR (CARRIER)	E1D 3023
2- 54	9A09441300	GEAR (PLANET)	E1D 3024
2- 55	9A09441400	PULLEY (MOTOR-A)	E6D 3006

# EXPLODED VIEW-2 (MGC-F3400)

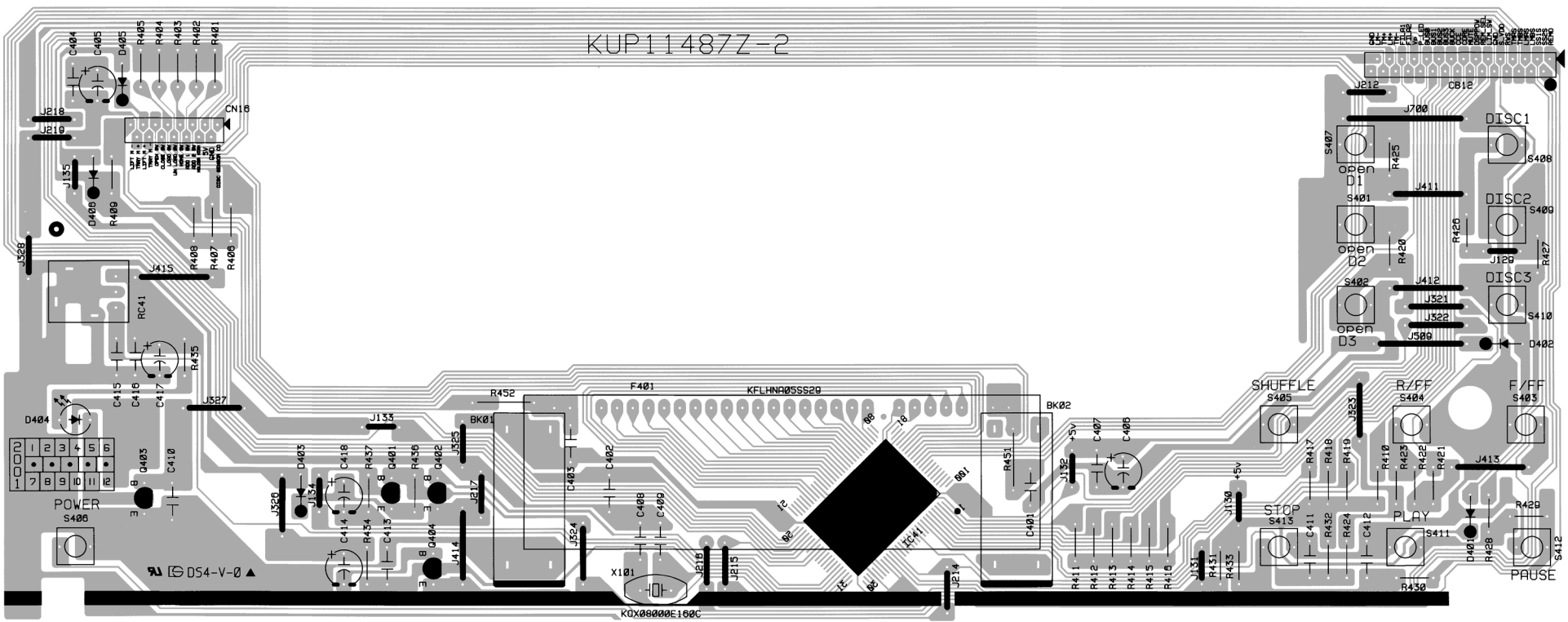
REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
2- 56	9A09441500	BELT	F3D 4001
2- 57	9A09453400	TORSION SPRING(CAM LIFT)	F3D 6003
2- 58	9A09441600	EXTENSION SPRING(TRAY LOCK)	F3D 6006
2- 59	9A09441700	TORSION SPRING(LACK GEAR)	F3D 6008
2- 60	9A09441800	TORSION SPRING(HOLDER GEAR)	F3D 6009
2- 61	9A09441900	SHAFT (GEAR-B)	F3D 8001
2- 62	9A09442000	SHAFT (GEAR-A)	F3D 8002
2- 63	9A09442100	SHAFT (PULLEY)	F3D 8003
2- 64	9A09442200	SCREW(TRAY)	E1D 8004
2- 65	9A09442300	SCREW(A2)	E1D 8012
2- 66	9A09442400	SCREW(SUB-L)	E6D 8011
2- 67	9A09442500	PCB(MAIN)	F3B 9001
2- 77	9A09443500	INSULATOR 37(DARK GREEN)	J02-1174
2- 78	9A09443600	INSULATOR 25(LIGHT GREEN)	J02-1175
2- 79	9A09443700	TRAVERSE UNIT	KCTB4H(S)
2- 80	9A09443800	PHOTO INT,GP1S93	T95-0159
2- 81	9A09443900	MAGNET (2)	90566023
2- 82	9A09444000	CONNECTOR, 15FMN-STK	90552020
2- 83	9A09444100	DC MOTOR,MDN4BT3MEA	91433166
2- 84	9A08360400	SWITCH, MUP10184MLB1	94081104
2- 85	9A09444200	SWITCH, MPU11470MLB0	94413121
2- 86	9A09444300	SWITCH, MPU11301MLB0	94413122
2- 88	9A09444500	PHOTO TR, RPT-38PB3F	99518076
2- 89	9A09444600	LED, SIR-34ST3F	99518209
2- 90	9A09444700	SCREW, TAP TITE 2.6X6	N09-3359
2- 91	9A09444800	SCREW, BIND TAPPING 2.6X8	N320023
2- 92	9A09444900	SCREW, BIND TAPPING 2.6X6 (BL)	N320024
2- 93	9A09445000	SCREW, SEMS 2X4	N530017
2- 94	9A09445100	SCREW, TAPPING 2X3.5	N920031
2- 95	9A09445200	SCREW, MACHINE M2X2.5	N930025
2- 96	9A09445300	POLY WS, 1.57X4X0.5CUT	8341115998
2- 97	9A09445400	COMPRESSION SPRING(GEAR)	F3D 6010
2- 98	9A09445500	SCREW(GEAR)	F3D 8007
2- 99	9A09445600	SCREW, BIND TAP TITE 2.6X6	N310037
2-100	9A09445700	RESISTOR, 390 OHM	RD14BB2C391J
2-101	9A09445800	RESISTOR, 330 OHM	RD14BB2C331J

3 PC BOARDS AND PARTS LIST

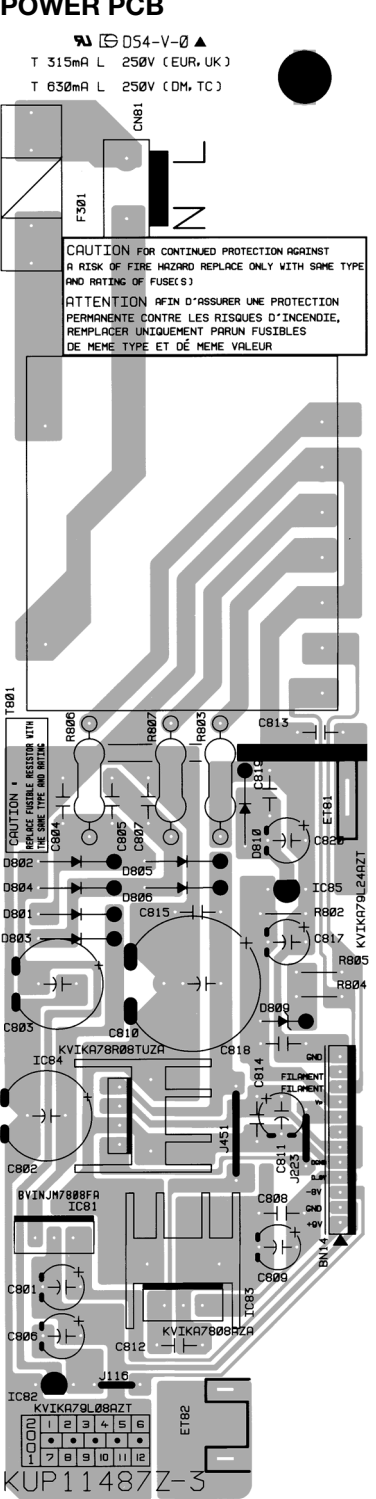
MAIN PCB



FRONT PCB



POWER PCB





## MAIN PCB ASSY (GATHER)

REF. NO.	PARTS NO.	DESCRIPTION
	9A09426300	MAIN PCB ASSY [US, C]
	9A09426310	MAIN PCB ASSY [E, UK]
	9A09427500	PCB, MAIN+SUB

## MAIN PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
CN12	9A09256300	WAFER, CARD CABLE
CN13	9A08220300	WAFER, CARD CABLE
CN14	9A05331000	WAFER, MOLEX 53014-1210
CN15	9A05329700	WAFER, MOLEX 53014-0610
D101	9A01390500	DIODE, 1N4148MT
D103-D107	9A01390500	DIODE, 1N4148MT
D201, D202	9A08869600	DIODE, ZENER UZ5.6BSCT
D203	9A08869700	DIODE, ZENER UZ3.6BSBT
D204	9A08869800	DIODE, ZENER UZ4.3BSBT
D205	9A01390500	DIODE, 1N4148MT
IC10, IC11	△ 9A08788600	IC, TA7291S
IC12	△ 9A08788400	IC, TA2092N
IC13	9A09427600	IC, TA2153FN
IC14	9A08788700	IC, TC9462F
IC15, IC16	△ 9A07871100	IC, NJM7805FA
IC51, IC52	9A07343300	IC, NJM2068MD-TE1
IC86	△ 9A06883400	IC, KA78L05AZTA
JK11	9A06869700	JACK, BOARD
JK12	9A06242200	JACK, BOARD
JK13, JK14	9A06239100	MODULE, OPTICAL
L101	9A05356900	COIL, 10UH K
Q101, Q102	9A05895900	TR, KTA1266YT
Q103	9A08791100	TR, KRC107M
Q104, Q105	9A05197500	TR, KTD1302T
Q106	9A08869900	TR, KRA104M
Q107	9A08791100	TR, KRC107M
Q201, Q202	9A08791100	TR, KRC107M
Q411, Q412	9A05197500	TR, KTD1302T
Q701	9A08791100	TR, KRC107M
Q702	9A08869900	TR, KRA104M
Q703, Q704	9A05939600	TR, KTC3227Y
SW10	9A06675300	SW, SLIDE
X301	9A04275700	CRYSTAL, 16.9344MHZ

## FRONT PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
BK01, BK02	9A07290000	BRACKET, FLT
CB12	9A09256300	WAFER, CARD CABLE
CN16	9A08870000	WAFER, CARD CABLE 15P
D401-D403	9A01390500	DIODE, 1N4148MT
D404	9A08147300	LED, SLR342VCTB7 (RED)
D405, D406	9A01390500	DIODE, 1N4148MT
F401	9A08868000	FIP
IC41	9A09452500	IC, TMP87PMF
Q401	9A08869900	TR, KRA104M
Q402-Q404	9A08791100	TR, KRC107M
RC41	9A06757900	SENSOR, REMOCON
S401-S413	9A06671200	SW, TACT EVQ21505R
X101	9A05193000	CRYSTAL

## POWER PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	9A05333500	HEAT SINK
	9A05328200	HOLDER, FUSE
C802, C803	△ 9A06226700	C, ELECT 1000UF/25V
C810	△ 9A05976300	C, ELECT 2200UF/35V
C820	△ 9A06694600	C, ELECT 47UF/50V
CN81	9A06674400	WAFER
D801-D806	△ 9A05194700	DIODE, 1N4003ST
D809	9A05194100	DIODE, ZENER MTZJ6.8BT
D810	△ 9A05194700	DIODE, 1N4003ST
ET81	9A05961500	PLATE, EARTH
ET82	9A07308700	BRACKET, PCB
IC81	△ 9A06868000	IC, NJM7808FA
IC82	△ 9A09260500	IC, KA79L08AZT
IC83	△ 9A05218300	IC, KA7808-ABTU
IC84	△ 9A08790800	IC, KA78R08
IC85	△ 9A09427700	IC, KA79L24AZT
R803	△ 9A06317800	R, FUSE 12AJ270H
R806, R807	△ 9A05338300	R, FUSE 12AJR47H
T801	△ 9A09427400	POWER TRANSFORMER [US, C]
T801	△ 9A09427410	POWER TRANSFORMER [E, UK]

## 4 INCLUDED ACCESSORIES

### INCLUDED ACCESSORIES

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
	9A08903100	OWNER'S MNL, E/F [US, C]	KQX1A745Z
	9A08903200	OWNER'S MNL, E/F/G/I/S [E, UK]	KQX1A746Z
	9A05935900	CORD, PIN	KJS4M014Y
	9A05936000	CORD, PIN	KJS4N001Y